

# Best Management Practices

MISSOURI DEPARTMENT OF CONSERVATION



# Hellbender

*Cryptobranchus alleganiensis*

Common name • Eastern hellbender

Scientific name • *Cryptobranchus alleganiensis*  
*alleganiensis*

State status • None at this time

Common name • Ozark hellbender

Scientific name • *Cryptobranchus alleganiensis*  
*bishopi*

State status • None at this time

## Ecology

The eastern and Ozark hellbenders are two subspecies of salamander found in Missouri. The eastern hellbenders range stretches from southern New York to northeastern Mississippi and northern Alabama and Georgia and into Missouri. Ozark hellbenders are found only in southern Missouri and Arkansas. Both are permanently aquatic and restricted to the Ozark Plateau in rivers that drain into the Missouri-Mississippi river systems.

These salamanders, solitary in nature, make their homes under flat rocks in large, permanent streams and rivers. They have a broad, flat head with very small, lidless eyes. Their color varies from reddish-brown to dull gray-brown. The sides of their body and limbs have soft, large folds of skin, and the tail is flattened and rudder-like. Hellbenders breed from late September to November. The 200-700 eggs are fertilized externally and laid in depressions under flat rocks in rivers. Larvae hatch after four-six weeks and lose their gills after about two years. Adult eastern and Ozark hellbenders may reach a length of 11.5-20 inches. Hellbenders feed mainly on crayfish and other aquatic animals.

## Reasons for Decline

Eastern and Ozark hellbenders are listed as endangered or considered a species of special concern in many states throughout their ranges. Proposed causes of decline for populations of hellbenders include stream impoundment, which causes the loss of shallow-water riffles and buries rocks in silt, and point and non-point source pollution. In addition, many hellbenders are killed because people mistakenly believe they are poisonous.

## Specific Recommendations

Hellbenders remain active throughout the year in riffle sections of open water and maintain their home territories year-round. For this reason, activities should be avoided that change physical characteristics of rivers and streams and alter the flow of water for long periods of time.

→ Dams and other impoundment structures should not be constructed in those streams and rivers where these salamanders occur.

→ Channel alterations that limit or eliminate shallow waters and remove cover rocks should be avoided.

→ Avoid crossing of streams; where crossing is unavoidable, temporary crossing that does not restrict flow is recommended.

→ Erosion and sediment controls should be strictly implemented, monitored and maintained for the duration of the project.

→ Avoid removing or altering the riparian corridor near streams.

→ Avoid in-stream gravel mining in streams and river systems where hellbenders occur.

## General Recommendations

Refer to Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers.

## Information Contacts

For further information regarding regulations for development near streams and rivers, contact:

Missouri Department of Conservation  
Policy Coordination Section  
P.O. Box 180  
2901 W. Truman Blvd  
Jefferson City, MO 65102-0180  
Telephone: 573/751-4115

Missouri Department of Natural Resources  
Division of Environmental Quality  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573/526-3315

U.S. Army Corps of Engineers  
Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816/983-3990

U.S. Environmental Protection Agency  
Water, Wetlands, and Pesticides Division  
901 North 5th Street  
Kansas City, KS 66101  
Telephone: 913/551-7307

U.S. Fish and Wildlife Service  
Ecological Services Field Office  
608 E. Cherry Street, Room 200  
Columbia, MO 65201  
Telephone: 573/876-1911

## Disclaimer

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from other state agencies, contractors and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat. Compliance with Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.